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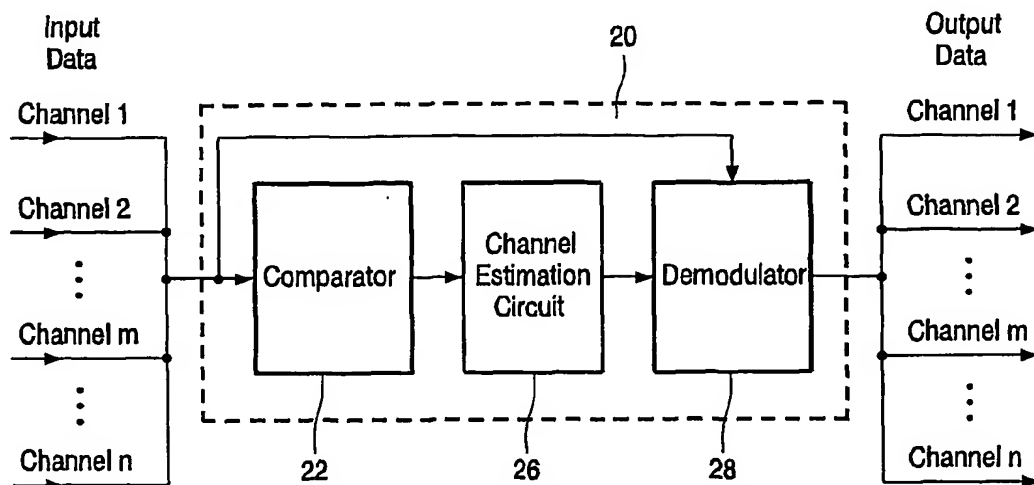
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(54) Title: CHANNEL ESTIMATION FOR A CDMA SYSTEM USING PILOT SYMBOLS



(57) Abstract: The present invention provides a CDMA based communication system with improved channel estimation capability with respect to multiple pilots transmitted via channels dedicated to the system. In one embodiment of the invention, a CDMA based communication system compares the received multiple pilots to one another and selects a pilot with the largest power level. The channel estimation is performed based on the pilot with the largest power level to derive the associated channel parameters. The information intended for the system is then demodulated, based on the associated channel parameters, to retrieve user data. In another embodiment of the invention, a CDMA based communication system first performs channel estimation on each of the dedicated channels, via each of which a pilot is received by the system, to derive channel parameters associated with each channel. Then all the channel parameters are combined to derive final channel parameters. The information intended for the system is demodulated, based on the final channel parameters, to retrieve user data. In this way, more precise channel parameters can be obtained.

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